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Reference document, such as a manual, book or published article.



Permit or application for a permit, approval or certification.



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520.01 Overview of Maintenance Phase

At WSDOT, highway maintenance includes both maintenance and operations. The maintenance service objective, stated in the State Highway Systems Plan, is to “maintain and operate state highways on a daily basis to ensure safe, reliable, and pleasant movement of people and goods.”

Maintenance work is performed to care for and maintain the highway and associated features so it substantially retains its original intended use and function. Maintenance activities include patching pavement, cleaning ditches and culverts, repairing slopes and streambank stabilization structures, controlling vegetation, and painting stripes on the road surface.

Operations activities affect the reliability of a direct service to users of the highway system.

* Web sites and navigation referenced in this section are subject to change. For the most current links, please refer to the online version of the EPM, available through the EAO home page: <http://www.wsdot.wa.gov/eesc/environmental/>

Activities include operating rest areas, reversible lane gates, highway lighting, traffic signals, snow and ice control, and keeping the roads operational during a disaster.

When damage to a highway or associated facility is extensive and the repair is beyond the resources of the maintenance division, the work is turned over to WSDOT’s Highway Construction Program and becomes a capital project. Such work typically requires preliminary engineering services and contract plans, specifications and estimates (PS&Es). It goes out to bid and private contractors are hired to complete the repairs.

Maintenance is WSDOT’s most visible activity with respect to environmental consequences. Painting, sanding, anti-icing, applying herbicide, mowing and brush control, restoring native plants, and maintaining drainage facilities are among the maintenance activities that can have environmental impacts. All material handling can have environmental safety implications for WSDOT employees and the general public. Environmental, health, and safety issues are being addressed through an education and training program for maintenance employees provided by the Olympia Service Center. [Ref: *Maintenance Manual, Chapter 11*]

This section summarizes environmental requirements covered in WSDOT’s *Maintenance Manual for Water Quality and Habitat Protection* and *Maintenance Manual* and gives additional details on several environmental issues with reference to Part 400 of the EPM, the *Highway Runoff Manual*, *Roadside Manual*, and other WSDOT documents.

The information referenced in this section primarily applies to highway maintenance; it also covers procedures for compliance with state water quality standards applicable to ferry system maintenance activities.

(1) Summary of Requirements

Various statutes, regulations, memoranda of understanding and implementing agreements, WSDOT policies, and permits applicable to maintenance activities are summarized below. Maintenance plans may be attached to permits issued when a project is constructed; for example plans for long term revegetation and restoration, wetland mitigation site maintenance; and spill prevention, containment (SPCC).

Technical guidance is summarized in this section by reference to the WSDOT manuals described below. Refer to these documents for details.

(a) Water Quality and Habitat Protection Manual

This WSDOT maintenance manual defines general and specific practices WSDOT will utilize to avoid adverse impacts to the aquatic environment from maintenance activities. Whenever avoidance is not attainable, impacts will be minimized. The manual was developed in compliance with the Endangered Species Act, Section 4(d) Limitation #10 Roadside Maintenance. The document also has been reviewed for consistency with Hydraulic Permit Approval (HPA) requirements by the National Marine Fisheries Service (NMFS) and Washington State Department of Fish and Wildlife (WDFW), and for consistency with state water quality standards by Washington Department of Ecology. The current draft of the manual is online at WSDOT's web site:

 <http://www.wsdot.wa.gov/>

Click on Site Index, then M, then Maintenance Office, then Environment, then Endangered Species Act, then Maintenance Manual for Water Quality and Habitat Protection.

Or by direct link:

 http://www.wsdot.wa.gov/fossc/maint/4d_rule/

(b) Maintenance Manual (M 51-01)

This manual covers procedures for highway maintenance. In several chapters maintenance activities have environmental implications: emergency operations (hazardous materials spills), drainage (aquatic habitat, water quality, wetlands, shorelines), bridge repair, roadside maintenance (integrated vegetation management), snow and ice control, and procuring materials from quarries or pits. References in this section are to the September 2000 draft.

(c) Maintenance Accountability Process (MAP)

This document is the primary tool used by the Maintenance Office for evaluating program service delivery and identifying budget investment choices. See the *Water Quality and Habitat Protection Manual*, Appendix 1.

(d) Highway Runoff Manual (M 31-16)

This manual is a guide to design and operation of transportation facilities that are related to or affect stormwater runoff. The manual is intended to provide uniform procedures for implementing design and maintenance decisions regarding highway runoff facilities. Chapter 7 covers roadway maintenance practices, including disposal of highway-generated waste, stormwater facility maintenance, snow and ice control operations, and bridge maintenance. Chapter 7 is included in the *Water Quality and Habitat Protection Manual*, Appendix 20.


 <http://www.wsdot.wa.gov/>

Click on Site Index, then E, then Engineering Publications, then On-Line Library. Find Highway Runoff Manual and 2002 Instructional Letter.

Or by direct link:

 <http://www.wsdot.wa.gov/FASC/EngineeringPublications/Manuals/Highway.pdf>

And:

 <http://www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/IL4020.pdf>

(e) Roadside Manual (M 25-30)

This manual provides consistent guidelines for roadside management, and supplements guidelines in WSDOT's *Roadside Classification Plan* (M 25-31). It is organized around a framework of roadside functions: operational, environmental, visual, and auxiliary. Environmental functions include water quality preservation, protection and improvement; stormwater detention and retention, wetland and sensitive area protection, noxious weed control, noise control, habitat protection and connectivity, air quality improvement, and erosion control. Sections of the manual offer resources on designated and sensitive areas, wetlands, water quality, wildlife, and noise abatement.

 <http://www.wsdot.wa.gov/>

Click on **Site Index**, then **E**, then Engineering Publications, then On-Line Library. Find Roadside Manual.

Or by direct link:

 <http://www.wsdot.wa.gov/eesc/cae/design/roadside/rm.htm>

(f) Design Manual

This manual is the basic reference for highway design. Chapter 700 of the manual, on roadside safety, is included in the *Water Quality and Habitat Protection Manual*, Appendix 28.

 <http://www.wsdot.wa.gov/>

Click on **Site Index**, then **E**, then Engineering Publications, then On-Line Library. Find Design Manual, then select a version.

Or by direct link:

 <http://www.wsdot.wa.gov/fasc/EngineeringPublications/library.htm>

(2) Acronyms and Abbreviations

See the general list of acronyms and abbreviations in the appendix. Those relevant to maintenance activities are listed in the *Water Quality and Habitat Protection Manual*.

(3) Glossary

A glossary of terms relevant to maintenance activities is given in the *Water Quality and Habitat Protection Manual*.

520.02 Statutes, Regulations, and Permits

There are several permit programs in which legal authority to protect water quality, fish, and the aquatic environment has been vested in state agencies and local governments by action of the Washington State Legislature. Many WSDOT maintenance activities are required to be permitted by these state permit programs. The conditions of the permits provide for protection of water quality, fish, and their habitat, and other elements of the environment. More than one permit from more than one agency may be required for work in streams or fish-bearing waters. The most common restriction has to do with timing. Normally, these restrictions will require that work be done during low flow conditions to minimize impacts to fish and water quality. (*Ref WQHP, Appendix 10, and Roadside Manual, p. 440-11.*) Additionally, when maintenance activities are carried out on tribal lands, environmental protection measures may be required by the tribal government or the U.S. Environmental Protection Agency (USEPA). Local governments also have authority to issue permits regulating activities in their jurisdiction.

(1) Federal

Clean Water Act, Section 404 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See **Section 431.06**.

Rivers and Harbors Act of 1899, Section 10 permit, administered by the U.S. Army Corps of Engineers, required occasionally for bank stabilization projects. See [Section 431.06](#).

Endangered Species Act (ESA) – See [Section 431.02](#) and *Water Quality and Habitat Protection Manual*, Appendix 6.

(2) State

State Environmental Policy Act (SEPA), RCW 43.21C and WAC 197-11. See [Section 410](#) through [Section 412](#).

Washington State Department of Natural Resources (DNR), Aquatic Use Authorization (Aquatic Lease), RCW 79.90 through 79.92, and WAC 332-30. See [Section 437.06](#).

Coastal Zone Management Certification, Department of Ecology. See [Section 452.06](#).

Hydraulic Project Approval (HPA), RCW 77.20 and WAC 220-110, administered by WDFW. See *Water Quality and Habitat Protection Manual*, Appendix 34 for Hydraulic Code Rules. A General HPA is in draft covering specific WSDOT maintenance activities, including removal of beaver dams; see [Section 436.06](#).

NPDES Stormwater Permit. See [Section 431.06](#) and *Water Quality and Habitat Protection Manual*, Appendix 24.

Minimal Functional Standards for Solid Waste Handling, WAC 173-304, and Washington State Dangerous Waste Regulations, WAC 173-303. See [Section 447.05](#) and *Water Quality and Habitat Protection Manual*, Appendix 14.

(3) Local Governments

Critical/Sensitive Areas Ordinances adopted under the Washington State Growth Management Act, RCW 36.70A, WAC 173-14 through 173-28.

Shorelines Permit Programs adopted under the Washington State Shorelines Management Act, RCW 90.58 and WAC 173-14 through 173-28.

Clearing and grading permits.

520.03 MOUs and Implementing Agreements

(a) Implementing Agreement on Water Quality Standards

The Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998) is intended for use by WSDOT and WSDOT contractors. (See [Section 431.04](#) and *Water Quality and Habitat Protection Manual*, Appendix 19.) The agreement covers general conditions for the following activities:

- Concrete work
- Erosion control
- Hazardous spill prevention and control
- Spill reporting

The Implementing Agreement also covers activity-specific conditions for the following highway and ferry system maintenance activities:

- Beaver dam removal
- Ferry system maintenance pile driving and removal
- Highway bridge and ferry terminal transfer span cleaning and painting
- Bridge pier, structure, bridge protection device, stream bank and roadway protection maintenance and repair.
- Debris removal from bridge piers, piles, braces and abutments
- Ditch, stream, and culvert cleaning and maintenance
- Ferry sacrificial structures, wing walls, dolphins
- Maintenance and relocation of navigation buoys

- Maintenance of stormwater control and treatment structures

The agreement is available on WSDOT's web site:

 <http://www.wsdot.wa.gov/eesc/environmental/>

Click on Regulatory Compliance, then Water Quality Implementing Agreement (under Documents).

Or by direct link:

 <http://www.wsdot.wa.gov/eesc/environmental/programs/regcomp/docs/impagfin.pdf>

(b) MOU Concerning Compliance with the Hydraulic Code

This MOU, currently being revised, is designed to provide a mutual understanding between the participating agencies for the application and acquisition of Hydraulic Project Approvals (HPAs). See [Section 431.04](#) and *Water Quality and Habitat Protection Manual*, Appendix 18.

(c) MOU on Work in Watercourses

This MOU, currently being revised, establishes procedures to prevent habitat loss through damage by flooding and future land development. See [Section 431.07](#) and *Water Quality and Habitat Protection Manual*, Appendix 17.

(d) MOU on Highways over National Forest Lands

This MOU establishes procedures for coordinating transportation activities on National Forest lands. See [Section 455.04](#) and *Water Quality and Habitat Protection Manual*, Appendix 16.

For compliance with the ESA 4(d) Rule for projects without a federal nexus, WSDOT is pursuing coverage under the routine road maintenance limit. A program specific to WSDOT road maintenance activities has been developed and is currently undergoing NMFS review. The program provides coverage for

routine, unscheduled, and emergency/disaster maintenance activities. It defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will utilize to avoid adverse impacts to the aquatic environment.

The WSDOT program, described in *The Washington State Department of Transportation Maintenance Manual for Water Quality and Habitat Protection*, June 2000, is designed to plug into the Tri-County Regional Road Maintenance plan. The regional plan is also under NMFS review. See [Section 436.05 \(3\)](#) for details.

520.04 Policy Guidance

WSDOT policy is to “minimize the impact that construction, operation, and maintenance of transportation facilities has on the state’s surface and ground water” (Washington Transportation Commission Policy 6.3.3). Please see [Section 431.03](#) for details.

WSDOT will utilize the BMPs in the *Water Quality and Habitat Protection Manual* as required by the various permits, and agreements referenced therein. In areas where none of these referenced documents apply, and there is potential from a maintenance activity(s) to harm a fish or aquatic habitat protected under the ESA, BMPs will be utilized to avoid and minimize adverse impacts. BMPs will generally be used for activities conducted within 300 feet of protected riparian areas. BMPs will also be used where some type of conveyance (i.e. roadside ditch or channel) serves to potentially convey impacts beyond a 300-foot buffer. To assure adequate usage of BMPs, WSDOT is identifying, mapping, and marking sensitive areas so maintenance field personnel know where to apply protective BMPs. See map and marking example in the *Water Quality and Habitat Protection Manual*, Appendix 9.

In some areas of Washington State (most notably some of the more arid parts of central and eastern Washington) highway maintenance

activities have no potential to harm protected fish or aquatic habitat, simply because there is no habitat, fish, or conveyances to fish habitat in these areas. Under these circumstances, maintenance superintendents will determine the need to use BMPs for operational efficiencies. (Reference: *Water Quality and Habitat Protection Manual*, p. 26.)

WSDOT will utilize statewide meetings of maintenance engineers and maintenance superintendents to identify and announce any modifications or changes to the avoidance and minimization actions identified in the *Water Quality and Habitat Protection Manual* and other related, referenced documents. New technologies will also be discussed at these meetings. Modifications will be shared with the NMFS for concurrence to maintain our status of “ESA compliant.” Additional forums will be utilized or created if needed to adequately include key stakeholders (i.e. federal and state regulatory agencies and additional WSDOT personnel) in changes of applicable environmental protection practices.

WSDOT, NMFS and USFWS shall meet annually to assess how the program is working and to discuss recommended changes, if any are needed. Any substantive changes in environmental protection BMPs or procedures prior to the annual meeting will be communicated to staff, NMFS and the USFWS through an instructional letter for their concurrence. (Reference: *Water Quality and Habitat Protection Manual*, excerpt from Sandy Stephens.)

520.05 Technical Guidance

(1) Introduction

This section summarizes references to guidance in the *Water Quality and Habitat Protection Manual* and other WSDOT manuals. As in the *Water Quality and Habitat Protection Manual*, the section is organized by maintenance activity groups as described in the Maintenance Accountability Process (MAP). The manual

gives general and specific conditions as minimum BMPs expected to be utilized when performing maintenance activities. A range of BMP options are provided to achieve prescribed outcomes. This allows the crew supervisors the flexibility to select or modify BMPs for each site based on conditions in the field as long as they meet performance standards that focus on avoiding and minimizing erosion/sedimentation, containing pollutants, and avoiding and minimizing impacts to habitat.

(2) General Practices

The following general practices provide the basic foundation that applies to any maintenance activity occurring in riparian areas. BMPs will also be used where a roadside ditch or channel serves to potentially convey impacts to waters of the state.

(a) Adaptive Management

Adaptive management is a formal process for evaluating the current resource status and, over time, for evaluating the effectiveness of this WSDOT maintenance manual in protecting, maintaining, and enhancing habitat necessary to meet resource goals and objectives. The intent of this process is to make any needed adjustments to road maintenance practices.

(b) Environmental Deficiencies (Retrofit)

The Environmental Retrofit Improvement subprogram (I-4), administered through the EAO, consists of projects intended to reduce or mitigate the impact of highway construction projects on the environment. The retrofit program is in addition to WSDOT’s ongoing commitment to environmental mitigation as part of all highway system improvement projects. The program focuses on:

- Fish passage barriers
- Stormwater initiative
- Stormwater BMP retrofits
- Long term tracking
- ESA compliance

(c) Timing Limitations

To minimize impacts to fish, maintenance activities will occur within the time periods identified in WDFW's preferred in-water work windows (see *Water Quality and Habitat Protection Manual*, Appendix 10), except for unscheduled maintenance and emergency/disaster maintenance. Additionally, in non-marine waters, work will be conducted when streams are either dry or at low-flow stages and the weather conditions have been predicted to ensure that the stream remains in a low-flow stage.

Work outside the timing limitations will require notification to the Corp of Engineers, Ecology, WDFW, and the local Shoreline Permit Manager or Shoreline Administrator prior to or in conjunction with responding to the event (see *Water Quality and Habitat Protection Manual*, Appendix 11, WSDOT Emergency Project Checklist.). All unscheduled maintenance and emergency/disaster maintenance will utilize as many activity-specific BMPs as possible to avoid and minimize impacts to fish, fish habitat, and water quality.

If any equipment leaks or fuel spills within or adjacent to waters of the state, work activities will immediately cease, spill will be contained, and WDFW and Ecology will be notified of the incident. Work activities will not resume until further approval is given by WDFW and Ecology.

If fish are observed in distress, a fish kill occurs, or water quality problems develop, work activity will immediately cease and WDFW Habitat Program and Ecology shall be notified immediately. If salmon are involved, the NMFS will also be notified immediately. Work will not resume until further approval is given by the notified agencies.

(d) Waste Disposal

Highway maintenance activities generate a variety of waste materials, including dangerous

and hazardous waste. Management and disposal of these waste materials are regulated under state law (see above, [Section 520.02](#)). WSDOT recycles waste materials suitable for recycling. For example, road sweepings can be screened to remove litter and other debris and re-used as a road shoulder dressing materials. Sweepings are not suitable for recycling when there are too many fines in the material, or if a traffic accident resulted in petroleum contamination of the sweepings.

WSDOT-owned sites at which maintenance waste materials are either temporarily stockpiled or disposed will be assessed for proximity to sensitive riparian habitat and potential for adversely impacting nearby habitat areas. Erosion and sediment controls and/or other environmental protection BMPs will be implemented at WSDOT-owned waste disposal sites as needed to minimize adverse environmental impacts. Highway maintenance-generated wastes and other materials will not be disposed at sites where disposal will result in damage to federally-protected species of fish and/or their habitat. See and *Water Quality and Habitat Protection Manual*, Appendix 15 for findings and recommendations to date.

(e) Training

It is the responsibility of maintenance personnel to understand and correctly implement environmental protection BMPs for a variety of maintenance activities as they conduct their daily tasks. WSDOT has an extensive outreach and training program for its maintenance personnel in which environmental protection information is included. Please see *ESA 101 Course Outline Agenda and Curriculum*, Appendix 6; *Erosion and Sediment Control Training Curriculum*, Appendix 7; and *Equipment Trainers' Handbook*, Appendix 8.

(f) Compliance Monitoring, Documentation, Review Process

The *Water Quality and Habitat Protection Manual* includes a proposed program for

compliance monitoring to meet environmental protection requirements in areas where fish are protected as “threatened” or “endangered” species. Documentation and reporting procedures are also included, as are procedures for review by maintenance engineers and superintendents to review and consider modifications or changes to the avoidance and minimization actions identified in the manual and other documents.

For compliance with the ESA 4(d) Rule for projects without a federal nexus, WSDOT is pursuing coverage under the routine road maintenance limit. A program specific to WSDOT road maintenance activities has been developed and is currently undergoing NMFS review. The program provides coverage for routine, unscheduled, and emergency/disaster maintenance activities. It defines general practices (such as adaptive management, monitoring, and training) and specific practices (such as BMPs) that WSDOT will utilize to avoid adverse impacts to the aquatic environment.

The WSDOT program, described in *The Washington State Department of Transportation Maintenance Manual for Water Quality and Habitat Protection*, June 2000, is designed to plug into the Tri-County Regional Road Maintenance plan. The regional plan is also under NMVS review. See [Section 436.05\(3\)](#) for details.

(3) Group 1 – Roadway Maintenance and Operations

This activity group includes five program elements: patching, repairing, crack sealing, shoulder maintenance, sweeping and cleaning, and miscellaneous roadway maintenance.

(4) Group 2 – Drainage Maintenance and Slope Repair

This activity group includes five program elements: clearing ditches, channels, culverts, and catch basins; and correcting moderate slides

and slope failures. See the following references in the Water Quality and Habitat Manual:

- Appendix 3 – Stormwater BMP Retrofit Projects
- Appendix 7 – Erosion and Sediment Control
- Appendix 21 – 5-Year GHPA for Removal of Newly Constructed Beaver Dams
- Appendix 22 – 5-Year GHPA for Removal/Relocation of Debris
- Appendix 23 – Integrated Streambank Protection Guidelines

WSDOT’s *Maintenance Manual*, Chapter 5, describes procedures for maintaining drainage facilities such as ditches, gutters, drains, culverts, storm sewers, and retention as nearly as possible in the condition and at the capacity for which they were originally designed and constructed. It also provides general guidance for bi-annual inspections, additional inspections during heavy storms and high runoff, keeping natural drainage ways open, preventing drainage from abutting properties; and lists regulations that may affect drainage maintenance.

As described in the *Roadside Manual*, maintenance of stormwater control facilities such as detention ponds or swales usually includes:

- Weed control and noxious weed removal
- Periodic sediment removal and disposal
- Reestablishing grass after sediment removal.

It is important that grass-lined swales remain grass lined. It is the roughness of the vegetation that slows water movement and aids in removal of sediment and pollutants from the water. [*Ref Roadside Manual*, p. 440-10]:

Also consult the guidance on requirements, BMPs, and roadway maintenance practices found in the *Highway Runoff Manual* (Chapters 2, 4-5, 7-8), the regional environmental and hydraulics staff, or the Area Maintenance Superintendent before performing activities (such as deepening ditches or plugging existing

drainage structures) that alter the designed drainage pathways within the roadside area.

Refer to long-term revegetation and restoration plan for the project, including ponds, swales, etc.

Personnel working in the roadside environment must be aware of the fundamental differences in regulatory restrictions for natural wetlands and detention/retention ponds. While these ponds might look similar to some natural wetlands, a detention/retention pond is built specifically for receiving and/or treating runoff and is not regulated as a jurisdictional wetland (ref: *Roadside Manual* p. 440-10).

(5) Group 3 – Roadside and Landscape Maintenance

Roadsides are defined as the areas between the outside edges of the shoulders and the right of way boundaries. This includes unpaved median strips, wetlands and associated buffers, storm-water treatment facilities, park and ride lots, and auxiliary features such as rest areas, roadside parks, viewpoints, heritage markers, and bicycle and pedestrian facilities. See the following references in the *Water Quality and Habitat Manual*:

- Appendix 25 – WSDOT Design Manual Figure 700-1, Clear Zone.
- Appendix 26 – Integrated Vegetation Management for Roadsides.
- Appendix 27 – State Noxious Weed List and Schedule of Monetary Penalties (WAC 16-750).

The *Maintenance Manual*, Chapter 7, Roadside Maintenance, addresses maintenance issues primarily related to vegetation management, and also covers litter control and maintenance of rest areas, viewpoints, and historical markers. It has been written to integrate with information relating to roadside management topics presented in WSDOT's *Roadside Manual*, *Roadside Classification Plan*, *Highway Runoff Manual*, *Integrated Vegetation Management for*

Roadsides, and *Design Manual*. It also lists as references WSDOT guidance on the Endangered Species Act (*ESA 7(d) Project List and Storm Water Effects Guidance*, IL 4020.00, July 1, 1999).

The *Maintenance Manual* defines biological, chemical, cultural, and mechanical methods for vegetation management, and gives general guidance for noxious weed control, removal of hazard trees, use of pesticides, use of mowing equipment, other cutting methods, cultural and biological control methods, debris burning, monitoring for illegal tree removal.

The *Roadside Manual* (page 420-13) lists long term maintenance required for wetland mitigation sites:

- Repairing damage to the site from vandalism, storms, or fire.
- Control of exotic and invasive weed species.
- Eradication of state-listed noxious weeds.
- Plant replacement, if necessary, to meet permitting requirements.
- Selective removal of some trees to facilitate natural succession.

Also refer to vegetation management guidance in the *Roadside Manual* regarding:

- MOU with WDFW – no mowing in Eastern Washington during upland bird and migratory fowl nesting season. Delay mowing until after July 1.
- Avoid clearing vegetation in sensitive areas without consulting with EAO.
- Avoid use of herbicide in or adjacent to ditches with drain into wetlands and/or streams, or adjacent to sensitive plant habitat.
- Integrated Vegetation Management for Roadsides – includes provisions to allow and encourage native plant growth where possible and provides guidance for doing so.

See also [Section 431.06](#) of the EPM for information on permits for application of

herbicides for noxious and non-noxious weeds. When any herbicide application is made in or on to waters of the state, it is considered an aquatic herbicide application and falls under the jurisdiction of the Department of Ecology. Prior to the application the conditions established in the Water Quality Permit for aquatic noxious weed control or the Administrative Order for non-noxious aquatic weed control must be met (see [Exhibit 431-10](#) and [Exhibit 431-11](#)). Contact the Region Landscape or Environmental Office for further information and copies of the Water Quality Permit and Administrative Order, or contact the Regional Ecology office in the area the work will be performed.

Other references in the EPM ([Section 437.05](#)) include:

- Wetlands Maintenance Action Plan
- Maintenance Action Plan
- Contingency Plan

(6) Group 4 – Bridge and Urban Tunnel Maintenance and Operations

This activity group includes bridge deck repair, structural bridge repair, bridge cleaning, and miscellaneous bridge maintenance. See *Water Quality and Habitat Protection Manual*, Appendix 29, Bridge List, and Appendix 30, Bridge Scour Repair.

WSDOT's *Maintenance Manual* Chapter 6, Bridge Maintenance and Repair, focuses on items in which area maintenance personnel assist in maintenance of bridges and minor structures such as drainage structures, retaining walls, acoustical barriers, and cribbing. In describing environmental aspects of bridge maintenance and repair, it lists 24 environmental concerns for which maintenance personnel are increasingly being held accountable.

See EPM [Section 447.05](#) for information on lead paint.

(7) Group 5 – Snow and Ice Control

During winter months from November to March, the primary focus of highway maintenance is to keep the highways operational by removing snow and ice, and patrolling the roadway for early detection of slides, icing, and other winter hazards. For traffic safety in some locations, “anti-icing” chemicals may be applied to prevent icing. Between snow storms, crews may sweep up accumulated sand, to reduce dust and minimize air quality impacts and reduce the sediment contribution to adjacent water bodies.

See *Water Quality and Habitat Protection Manual*:

- Appendix 31, Snow and Ice Control Service Level Objectives.
- Appendix 32, Chemical Deicer Specifications
- Appendix 33, Chemical Deicer Test Methods.

(8) Group 6 – Traffic Services

Traffic services necessary for safe and efficient movement of traffic include maintaining highway signs, delineators, pavement markings, traffic islands, curbs, barriers, guardrail, traffic signals, and highway lighting. Environmental practices include timing of painting activities and fueling and maintaining equipment away from nearby waterways.

(9) Group 7 – Rest Areas

An operation and maintenance manual is required for industrial wastewater facilities including those at WSDOT rest areas and other facilities (WAC 173-240-150). Ecology has enforcement responsibility.

(10) Group 8 – Support Operations

This activity covers a variety of miscellaneous activities needed for efficient, effective operation, including servicing equipment and tools, organizing and inventorying stockpile

sites and store rooms, and having a radio dispatcher. Environmental practices primarily relate to maintenance of stockpiles to protect water quality.

(11) Group 9 – 3rd Party Damages and Disaster Operations

This activity group includes fixing damage to roadways, roadsides and structures caused by such things as storms, floods, and accidents. Unscheduled maintenance activities require action to preserve public safety and welfare but there may not be time to go through the normal permitting process. In such cases, WSDOT notifies regulatory agencies that applications for expedited permits will be submitted. If the danger becomes more immediate and regulations cannot be complied with, the applications should be treated as emergency actions.

(a) Maintenance Manual Guidance

WSDOT's *Maintenance Manual*, Chapter 1, provides guidance to reduce WSDOT's vulnerability from any emergency or disaster and incorporates day-to-day operational procedures from *WSDOT's Disaster Plan and Emergency Procedures Manual* (M 31-11). WSDOT will periodically provide training and conduct exercises to test the WSDOT Disaster Plan and Procedures to assure maintenance of a readiness mode and reflection of current department operational practices. Procedures for responding to hazardous materials spills are given for maintenance field personnel and maintenance superintendents or supervisors.

(b) Emergency Response Guidance

The EAO is coordinating with FOSSC Maintenance to develop a brief document providing guidance for emergency response. The document will include the definition of "emergency," outline the appropriate environmental procedures for responding to emergency and imminent threat situations, provide an emergency response checklist, and

list regulatory agency personnel to contact by phone during emergency repair projects.

(12) Other

(a) Excavation from State Quarries or Pits

A section in the *Maintenance Manual*, Chapter 11, summarizes rules regarding materials from state-owned quarries or pits, and notes that Ecology stormwater permits are required at pits and quarries where aggregate is being mined or crushing operations are taking place. This topic will be covered in the next revision of the *Water Quality and Habitat Protection Manual*.

(b) Noise during maintenance

Construction noise is temporary but may adversely affect nearby residents. During project development, the design engineer should have considered ways to reduce or mitigate the adverse impacts of construction. All reasonable methods should have been incorporated in the plans and specifications of the contract.

In most cases, daytime noise from construction activities is exempt from local laws. For some projects, permits from local jurisdictions may be needed. For each project, the local jurisdiction will need to be contacted to determine the local regulation and if a permit is required. Some acoustical analysis may be needed before the local agency will grant the permit. This is done on a case-by-case basis.


These same regulations apply to maintenance activities in all but emergency situations. In the latter case, the police department and the local permitting agency should be contacted and apprised of the situation at the earliest possible opportunity.

For guidance on obtaining a local variance, see the WSDOT web site:

 <http://www.wsdot.wa.gov/eesc/environmental/>

Click on **Air/Acoustics/Energy**, then **Acoustics**.

Or by direct link:

 <http://www.wsdot.wa.gov/regions/Northwest/SpecialSvc/environmental/aae/default.htm>

520.06 Non-Road Project Requirements

Environmental procedures for ferry-related maintenance activities are covered in the *Water Quality and Habitat Protection Manual*. See [Section 520.03](#) for a list of ferry maintenance activities covered under the Implementing Agreement between Ecology and WSDOT regarding compliance with state surface water quality standards (February 13, 1998).

520.07 Exhibits

None.